City of Annapolis

DEPARTMENT OF NEIGHBORHOOD & ENVIRONMENTAL PROGRAMS

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Chartered 170

November 4, 2015

TCG Storage, LLC c/o SMJ Partners, LLC 1930 Isaac Newton Square West, Suite 207 Reston, Virginia 20190

RE: Review of the September 21, 2015 Forest Stand Conservation Plan (FCP), Chinquapin Self Storage, 1829 George Avenue

Sir/Madam,

Following are comments from the Department of Neighborhood and Environmental Programs regarding the Forest Conservation Plan submitted with the request for a Special Exception for Chinquapin Self Storage:

- 1. The City of Annapolis typically requires that for any Forest Conservation Act project that the afforestation requirement be met on-site. If the required tree planting cannot be done on-site then off-site planting in the same general area is recommended. A fee-in-lieu of planting will only be accepted as a last resort.
- 2. Any trees that will be planted on City property will require a one time \$1,000 maintenance fee for each tree.
- 3. Street trees must be in a tree lawn that at least five feet in width, five feet from the curb/sidewalk, and 15 feet from the storage facility.

Stormwater Management Plans and Computations

- 1. The stormdrain computations show a total drainage area of 0.96 acres on page 13 of the SWM Report. On page 26 of the SWM Report, the total drainage area of the site is 1.08. There is 0.12 acres of area, mostly impervious that is not being accounted for in stormdrain systems in this area.
- 2. The Stormdrain Flow Tabulations Table on page 14 of SWM Report shows proposed MH9 flowing towards proposed I4. Does the flow here account for the flow splitter proposed at MH9?
- 3. Proposed MH8 is not shown in the Stormdrain Flow Tabulations Table on page 14 of SWM Report.
- 4. In the Stormdrain Flow Tabulations Table on page 14 of SWM Report, at the bottom of the table there is a line showing Surface to I/MH1. Does this manhole act as an inlet as well?
- 5. On page 24 of the SWM Report, the calculation for Rv is shown to be equaling 0.767 in the Section labeled Compute Qe. On page 26 of the SWM Report Rv is shown as 0.766.
- 6. On page 27 of the SWM Report, the calculation for ESDv provided for Green Roof GR-1 is shown to equal 2200 CF. Using the factors presented, the ESDv provided would equal 2190 CF.
- 7. On page 27 of the SWM Report, the roof thickness is shown to be in acres, not inches.

- 8. On page 27 and 28 of the SWM Report, the percent impervious calculation for MB-1 and MB-2 is shown as 57.1% for MB-1 and 75.0% for MB-2. Using the factors presented %I for MB-1 should be 63.2% and for MB-2 %I should be 73.5%.
- 9. The "Design Your Own Detention System" worksheet provided with these plans show the length of the barrels to be 55.0 feet and length per header to be 16.0 feet and 3 barrels for the detention system. The plans included with this project show 4 barrels, at 46 feet in length and 22 feet for the header.
- 10. For this project the type of green roof needs to be specified completely. MDE approval for the EcoCline Greenroof System specifically indicates that the +2 series is equivalent to an 8" Greenroof. The +1 series is equivalent to 4" Greenroof.
- 11. The area that is contributing to the flow splitter is only connected to the roof where the green roof is present. Drainage areas 4, 5, and 7 all bypass treatment prior to entering the stromdrain system and the stormfilter proposed only treats mostly treated runoff through a greenroof. Additionally, Drainage Areas 13, 14, and 15 are bypassing treatment on the site.
- 12. The borings at B-4 and B-5 indicate that the groundwater level is at 7.9 feet and 7.0 feet from the surface, respectfully. B-4 is closer to MB-1 which has the bottom of the planting soil located at an elevation 37.5. B-4 has a surface elevation of 41, meaning the groundwater is located at elevation 33.1, which is within 4 feet from the planting soil. B-5 is closer to MB-2 which has the bottom of the planting soil located at an elevation 35.25. B-5 has a surface elevation of 40, meaning the groundwater is located at elevation 33, which is within 4 feet from the planting soil. The groundwater is not allowed by the MDE Manual to be within 4 feet of the facility.
- 13. The plans show the detention system with flow entering from the flow splitter, going through the first barrel of the 48" pipe where it will meet the header, than distribute to the 3 other barrels. These systems typically have headers on either end to promote distribution along the flat bottom, not channeling towards the exit and bypassing detention.
- 14. The area for the greenroof needs to be shown on the SWM plans.
- 15. The plans and computations show the full flow capacity of the 48" pipe at the outfall of the site to be 161.23 CFS. The SWM Report says on page 36 to see Flowmaster output. This information was not provided with this report.
- 16. The slopes presented on the stormdrain profiles do not match the slopes shown on the report and on the same pipe profile.

Please contact me if you have any questions.

Sincerely,

Frank Biba, AICP, LEED AP Chief, Environmental Programs

Dept. of Neighborhood and Environmental Programs

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cc: Maria Broadbent, Director DNEP Pete Gutwald, Director P&Z

Terry Schuman, Bay Engineering